

The Western Zhou Mound-Burial Tombs in Jurong and Jintan, Jiangsu

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Jiangsu's Ningchang and Zhenli highways began construction in the year 2004. These two routes pass through the densely arranged burial mounds of Jurong and Jintan. From April 11 to mid-September, the Institute of Archaeology of Nanjing Museum organized salvage excavations along the highway routes. In over 150 days, forty mounds were excavated. A total of 233 graves, 229 pits that contained ritual artifacts, and 14 burial-related architectural constructions were examined, yielding over 3800 cultural artifacts.

Method of Excavation

The scale of this project to excavate mound burials is the largest to date, and serves as an opportunity to solve the riddle of mound burials in Jiangsu. Due to the unusual circumstances of the discovery, the excavation of the mounds was carried out in a cross-shaped plan. With each of the arms of the cross measuring 1m wide, the mound was divided into four separate excavation pits. In the course of the excavation, changes were made to the so-called "cutting the cake" method of exposing the stratigraphy. With the work on the four pits progressing at the same rate, the mounds were analyzed according to soil components, soil color, and other signs that enabled the differentiation of the levels of the site. Moving from the latest to the earliest period as each layer was exposed, every level of every pit was rigorously monitored to gain insight into the scale and plan of the burials, their orientation, and the process by and reason for which the mounds were constructed. Attempts were made to reconstruct the process of mound building using models, which turned out positive results. The goals of this project were to persist in academic inquiry throughout the process of excavation; to answer those questions along the way; to raise new queries; and to solve the manifold questions on mound burials with the

greatest possible effort.

Approaching the project along these lines, a series of new discoveries were gained that not only enriched the meaning of mound burials in the Jiangnan region, but also led to many breakthroughs, among other things, in the understanding of the formative structure, burial methods, and ritual customs associated with mound tombs.

Primary Gains

1. The co-existence of single-grave mounds (SGM) and multiple-grave mounds (MGM)

In the excavation of 40 mound tombs, there were 3 instances of SGM and 28 MGM. In the case of SGM, apart from the location of the grave at the central position of the mound, each of the four sides around it are usually placed with clusters of grave goods in unequal quantity (in pits) located on different levels; examples of such cases include Dongbianshan D2 at Tianwang, Shangshui D2 and Mopanlinchang D1 at Xuebu. In the case of MGM, the area around the central grave contains multiple graves at different levels, an example of which is Zhaihuatou D2 at Jurong. This latter mound was 20m in diameter and 4m high, with 26 graves buried at various levels around the central grave. At D4, the surrounding graves numbered 20 and included 8 clusters of grave goods. At Dongbianshan D1, which measures 22m in diameter and 2.3m high, there were 14 surrounding graves. At Fushan orchard D29, the mound diameter was 30m across with a height of 2.8m; besides the central grave, the surrounding area contained 44 graves and a single cluster of grave goods, making this, currently, the mound with the highest number of burials. This excavation exceedingly shows that both SGM and MGM existed in the Jiangnan region, and that the latter was clearly the more common of the two types (Figure 1).



Figure 1. The distribution of burials D1 at Dongbianshan (photo from top)

2. The existence of multiple methods of burial

Earlier research had commonly taken the view that the unique mound burials of the Jiangnan region generally did not contain burial pits, but involved the deceased being placed on a flat ground over which earth was heaped. Later on, it appeared that there were instances of earthen pits but they were not thought to be common and were mostly found within SGM.

The 40 mounds excavated in this project contained 233 graves, primarily with four types of burial styles. Among these styles, the frequently occurring type was that of pit burials, which were rectangular or trapezoid with vertical walls, the base of which was flat, and measured approximately 3m long and 1m wide. The depths of the pits are not uniform, with most of the graves facing the center of the mound dug deeper, such as at Zhaihuatou D2M3 (Figure 2).

The second burial method involved the use of earth to seal up a pit, with the sole example being Dongbianshan D1M13 that has a grave located in the center. The foundation of this mound is made up of very fine grayish-yellow earth piled up into a small circular mound, at the center of which was a rectangular pit with a passageway. Next, the east, west and north sides of this pit are lined with a wall made from pounded reddish-brown earth about 50cm thick, creating a space that is similar to the burial chamber. Following the placement of the boat-



Figure 2. Zhaihuatou burial D2M3 (photo taken from west to east)

shaped coffin and grave goods at the center of this chamber, earth is used to seal up the pit and patted down. The burial pit is 4.25m long and 2.2–3.3m wide, the boat-shaped chamber measures 2.12m long, 0.8m wide and 0.12–0.15m high, with an orientation of 32°. The inside of the coffin shows obvious remnants of human bone decay; near the feet of the deceased was placed a single ceramic *yu*, while 41 grave goods—*dou* plate, *wan* bowl, *pou* vessel, *guan* pot, *tan* pot, *hu* jar, *ding* tripod, stone artifacts and others—were placed around the coffin. While this burial method had previously been found in SGM, this is the first time it is observed in MGM.

The third burial method involved piling earth over the grave and represents a unique style, with examples in Fushan orchard D29M41 and Xujiagou D2M4. The former was situated at the northeast of the mound. After leveling the ground at Level 6A, earth was piled over the deceased to form a rectangular mound with a seg-

ment-shaped vertical cross-section. The rectangular mound measures 3.3m long, approximately 1.45m wide, 0.5m high, oriented to 205°. Besides human teeth, this mound contained 28 artifacts that included *wan*, *dou*, *pou*, *guan*, *tan*, and *ding* (Figure 3).

The fourth burial method entailed, first, the digging of a shallow pit, which is covered by earth to form a small mound, e.g., D29M29 and M42, and D27M2 at Fushan orchard. D29M29 is located at the northwest side of the mound, with the opening situated at Level 5. A shallow vertical wall and level base was prepared, followed by the filling in of earth, which can be divided into 2 levels. The burial pit measures 2.9m long, 1.1m wide and is approximately 0.15m deep, while the mound was 0.5m high at its maximum point. Accompanying grave goods included *dou*, *wan*, *pou*, *guan*, *tan*, *ding* and others numbering 32 artifacts in all (Figure 4). This find represents the first discovery of this type of burial

and may be the country's earliest earth-sealed grave, which not only enriches the significance of mound burial customs, but also provides important information for the study of the beginnings of ancient burials in China.

Human teeth and traces of decayed human bone have been found in many graves, but they have seldom been seen in the excavations of small/medium mound tombs. This not only serves as evidence that such shaft pits functioned as graves, but also provides precious scientific information for anthropological studies of Bronze Age indigenous people in the Jiangnan region.

3. MGM center-facing design

The design of MGM varies widely but the center-facing style is rather unique, considering that it is a sharp contrast to grave designs of the Central Plains and Zhou peripheral areas; thus it has strong indigenous characteristics, making them a maiden discovery in the archaeology of mound tombs. Within the mounds with center-facing design, the central grave is surrounded by multiple graves dug at different



Figure 3. Fushan orchid burial D29M41 (photo taken from north to south)



Figure 4. Fushan orchid burial D29M29 (photo taken from east to west)

levels, with the heads of the deceased oriented towards the center. A complex layering of cultural strata and cases of strata penetration exist but there appears to be very rare instances in which the central grave had been disturbed by activities associated with other levels. Out of 40 mound tombs, 14 conform to this style. Altogether 15 graves were recorded in Dongbianshan D1, and the 14 tombs that open at Levels 2 and 3 are all oriented towards the central grave M13 (see Figure 2). Data had been collected from 27 graves at Zhaihuatou D2 at Tianwang, with the surrounding 26 graves facing the central grave M22 (Figures 5 & 6). Fushan orchard D29 has a total of 45 graves, with the surrounding 44 facing the central grave M45. Fourteen graves are distributed on Level 2, 17 on Level 4, and 9 on Level 5. There are 5 graves on Level 6B, with all the graves pointing towards the central grave, around which contain complicated strata relationships in which different levels collapse into or interpenetrate one another.

4. The existence of multiple forms of burial-related architectural remains

Fourteen architectural remains, situated above and below the grave, exist from among 9 out of the total of 46 mounds.

Those remains from above the grave refer mostly to constructions situated over the central grave, with the foundation, two sides of the ceiling/roof, stone platform and so forth organized into groups. Some of these are situated across the passageways of the grave and earth had been piled over the ceiling/roof so that a mound is formed. In the case of the central grave D29M45 at Fushan orchard, the door to the grave, the foundation, pillars, stone platform and small passageway constitute its architectural remains. The entire grave measures 7.2m long, the stone bed is 4.3×2.1m, and the passageway is 2.8m long and 1m wide. Judging from the archaeological context, M45 was dug out from the central position of the foundational level of the mound; its walls are segment-shaped and the foundation had a circular base, within which contained bits of broken up wooden fragments that can be pieced together into an inverted Y-shape structure that constitutes the two sloping sides of



Figure 5. Zhaihuatou burial D2M10 (photo taken from southwest to northeast)



Figure 6. Zhaihuatou burial D2M20 (photo taken from west to east)

the ceiling/roof. At the eastern section are situated the pillars and the door: the door is supported at its sides by stone blocks while outside of the door, black earth had been piled up to form a sloping passageway that leads to the ceiling/roof structure, under this ceiling/roof structure is located a stone platform built on an earthen base 20cm high (Figure 7). This type of architecture is similar to that seen in the King of Yue's tomb at Mount Yin, Zhejiang province, which, in fact, is a triangular cross-sectioned burial chamber with two sloping sides.

Subterranean architectural remains generally are located at the center of the foundation, where there appears to be no archaeological remains. Although it is located at the level below the central grave it has no direct connection to it, yet the two are basically aligned in the same position. At the time the central grave was constructed, the building had already been destroyed with only, among other remains, its foundation and post-holes left. Some of the foundation pits have been fully filled in, others only half-filled, and some had been lined with stone blocks; examples of these are found in Zhaihuatou D5F1, D2M22F1, D1G1 and G2, Shangshui D3F1 and D4F1, and others. D5F1 was constructed in the center of the mound at Level 6 and comprised of the foundation pit and post-holes. The southern, northern and western portions of the foundation pit connect to form an arc

whereas the eastern part is missing; within the pit, 32 post-holes are tightly distributed and generally slightly angled towards the interior (Figure 8). Along the east-west axis of the pit are 4 circular post-holes, which may be originally part of the inverted Y-shape construction; the stone platform of the central grave and the area of the foundation pit basically overlap. This type of building was probably used for sacrificial rituals at the time of the tomb's construction.

5. Boundaries of the burial site

This season's excavation yielded one mound tomb with an obvious boundary wall and protective slope. Also, one tomb in particular had a row of ridged soil, the first time this has been observed in mound tombs. The boundary wall of Dongbianshan D1 at Jurong follow an almost square plan, and it was constructed on the level of the mound's foundation pit. The outer section is surrounded by a protective slope and the western and southern portions of the wall are missing. The earth used to construct the mound generally accumulated within the walls with the exception of the highest level, which extended above it. The walls are approximately 20m in length, 40cm thick, and, due to damage, between 10–70cm high; the protective slope is about 40m wide (See Figure 2). The ridged soil at Shangshui D4 at Xuebu, Jintan, follows a segment plan and was prepared



Figure 7. Building remains above Fushan orchid burial D29M45

Left: The stone bed (photo taken from south to north) Right: Postholes under the stone bed (photo taken from east to west)



Figure 8. Zhaihuatou burial D5F1 (photo taken from east to west)

on top of the level of undisturbed earth. The middle section is missing, while the mound foundation and various levels of soil accumulation kept within this boundary. Based on what has been excavated, the boundary wall and the raised earth served the purpose of setting the extent to which graves could be located. At two other mounds were discovered earth piled over the protective slope, whose function was probably similar to that of the boundary wall and the row of raised earth.

For mounds without obvious boundary walls or ridged soil, the extent of the burials and the area of the mound's foundation generally coincided. The earth that covered the mound enclosed the graves, the clusters of sacrificial goods, and the area in which burial-related activities had taken place; apart from the final act of patting down the exterior of the mound, there is little evidence to show that such activities took place beyond the bounds of the foundation. In other words, once work was completed at the foundation level, the area of the burial site was confirmed. There has yet to be found evidence to show that the burial site's foundation was later expanded, for such types of mound foundations served to delimit

the burial site. These phenomena illustrate that there was certain planning involved at the early stages of the construction of the mounded burial site.

6. The sacrificial ritual-practice of burying goods as the primary characteristic

The practice of burying ritual items in mound tombs occurs primarily among SGM or a mound with few graves. Such practice is rarely observed in MGM or when present, contain only one or two small groups of ritual items. Large quantities of ritual items deposited in pits are commonly found on the eastern side of the mound tombs at Mount Mao. Groups of ritual goods that are deposited in pits are situated within the filled-in earth surrounding the central grave, and some of these pits slant at the sides to form a basket-shaped niche or a shallow pit. The number of such pits in a single mound varies from 1 to 25, and contains between 1 to 24 ritual items. Such items include *guan*, *pou*, *tan*, *ding*, *dou*, *wan*, *zhong* bowl, *gai* lid, and so on. Maodong D5 at Xuefu, Jintan, is an example of a gently sloping *mantou* bun-shaped mound with a roughly circular plan. It measures approximately 33m north-south, 35.5m east-west, 2.1m high, and is fairly well-preserved. The mound can be divided into 10 layers, enclosing 2 graves and 25 clusters of ritual items (Figure 9), of which 2 clusters were covered over with little mounds that have been patted

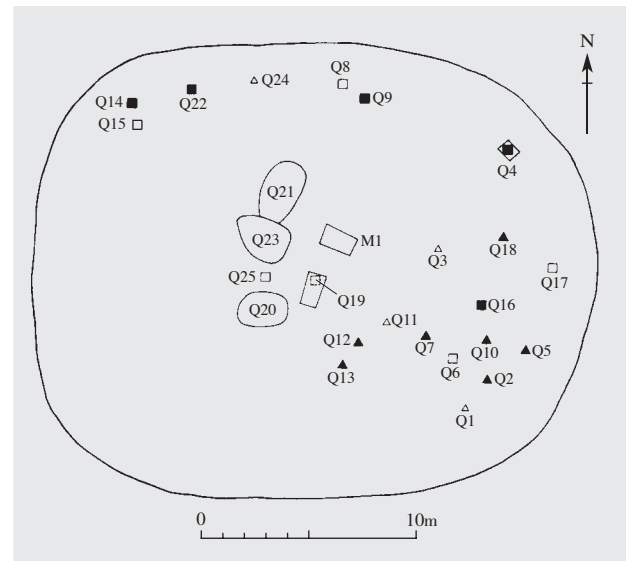


Figure 9. Sacrificial objects at burial D5 in Maodong, Xuebu, Jintan

Q1, Q3, Q11, Q24. Clusters of ritual objects on Levels 2–6; Q2, Q5, Q7, Q10, Q12, Q13, Q18. Clusters of ritual objects on Levels 7; Q4, Q9, Q14, Q16, Q22. Clusters of ritual objects on the primary earth; Q6, Q8, Q15, Q17, Q19, Q25. Clusters of ritual objects on Levels 8–10;

down. Also in Jintan, at Shaituchang D5, there were 3 graves which were discovered above the horizontal platform; 10 groups of ritual artifacts were found in the surrounding area, some of which are in basket-shaped niches, such as Shaituchang D1Q6, a vertical-walled and flat-based pit which is opened just below Level 2. Twelve articles—hard-ceramic *tan*, grey ceramic *guan*,

as well as proto-porcelain *zhong* and *bei* cup – were placed at the base of the pit.

7. Reconstructing the process of mound tomb building

From the excavations it has been found that the construction of many of the mounds began on a prepared level ground, on which was laid 1 to 3 layers of earth that constituted the foundation of the mound. There is

now clear evidence showing that with the completion of the foundation, both the bounds of the mound and that of the burial site were confirmed. By the location of a grave and the ritual building at the center of the foundation, this is the earliest type of earth-covered graves in the form of a mound. There have also been cases in which ritual buildings were first constructed on undisturbed soil or the mound's foundations, and only later was earth used to cover them before the central grave was constructed. Later on, earth was piled over this mound, then ritual activities took place here and/or additional graves were dug at different periods. After a certain time, a layer of earth was used to cover over the mound, burials and ritual activities ceased, and the whole process of the formation of a particular mound with its burials ended (Figure 10).

8. The excavation of abundant remains with rich and clear stratigraphic attribution

The excavation of 40 mound tombs this season resulted in the recording of 233 graves and 229 groups of ritual artifacts, in clusters, totaling over 3800 artifacts.

The composition of accompanying grave goods primarily included proto-porcelain *dou* or *wan*, hard-ceramic *pou*, *tan*; low-fired ceramic *guan* and sandy ceramic *ding*, and so forth (Figure 11). Generally, grave goods were placed on one side of the grave and at the feet of the deceased, and the hard-ceramic *tan*

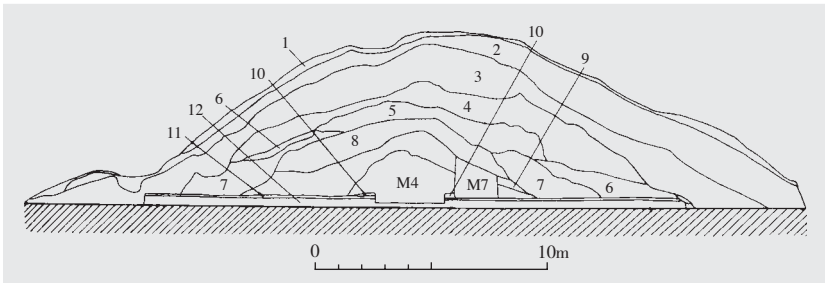


Figure 10. Cross section of Xujiagou burial D2
1–12. levels of the burial



Figure 11. Burial objects assemblage at Zhaihuatou burial D6M1



Figure 12. Fushan orchid burial D29M8 (photo taken from west to east)

and other large artifacts were mostly located around the feet. There are very few instances in which grave goods were placed just at either one side or around the feet. At Fushan orchard D29M8, which was 4.2m long, 1.2m wide, 0.44–0.8m deep and oriented at 350°, 25 grave goods were placed along one side of the burial pit (Figure 12). Graves were stocked with as few as 5 or 6 grave goods or in excess of 40 items, but on average contained 10 over pieces (Figures 13 & 14).

The stratigraphy was clear for both graves and grave goods, especially in the case of MGM, in which many graves displayed multiple direct connections of collapse or interpenetration. The mound D29 at Fushan orchard alone had 10 groups of such disturbances, which have been rarely found in earlier mounds. All this has provided detailed and accurate firsthand information to compensate for the inadequacy of the periodization of mound tombs and allows for the establishment of a meticulous and scientific standard to analyze them in the Jiangnan region.

Academic Significance

The primary distribution of mound tombs covers the regions of Jiangsu, Zhejiang, Shanghai, Anhui, Jiangxi, and northern Fujian. With a wide geographical distribution and a long time span, the practice of mound burials occupies an important position in China's Bronze Age. However from the 1970s onward when official excavations—and the establishment of a related vocabulary—in Jurong, Jiangsu province, began, to the 1980s with the archaeological discoveries of mound tombs in provinces of Zhejiang and Anhui, there have been continuous debates on mound tombs due to their complexity and the various structures found in different places. The manifold questions relating to mound tombs resulted in a long-term puzzlement that has riddled the academic community involved in the archaeology of south China.

The discovery of these 40 mound tombs clearly illustrate that both single- and multiple-grave mounds were

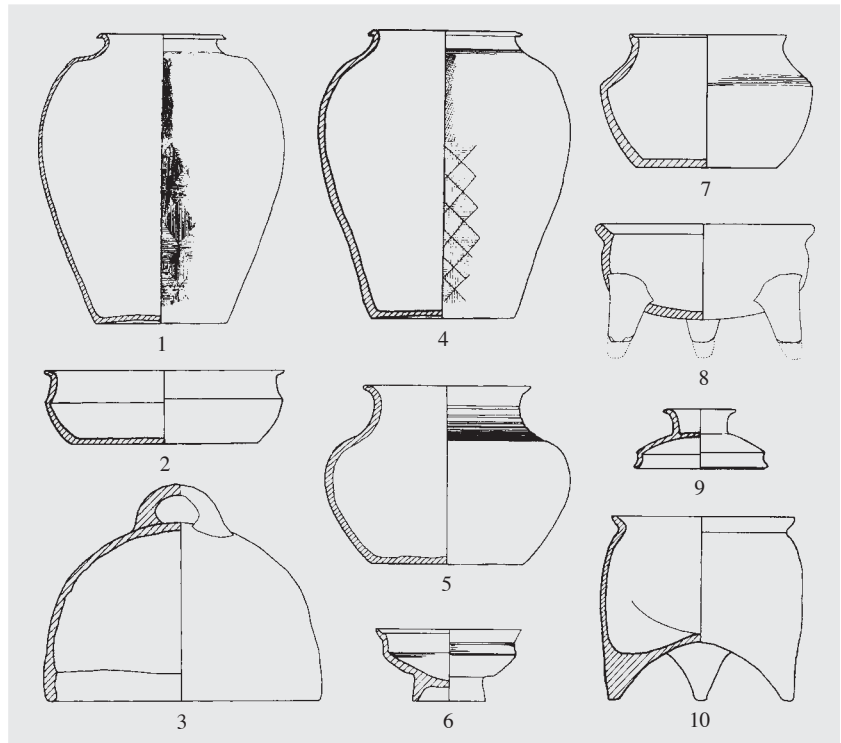


Figure 13. Burial objects from mound

1, 4. hard ceramic pots (D29M2:11, D33M3:17) 2. fine paste clay basin (D27H1:7) 3. sand-tempered ceramic lid (D29M44:2) 5, 7. fine paste clay pots (D29M43:6, D29M37:3) 6. primitive celadon stemmed plate (D29M45:8) 8. sand-tempered ceramic tripod (D1M5:14) 9. primitive porcelin lid (D29H1:7) 10. sand-tempered ceramic tripod (D1M1:12) (1–7, 9. from Fushan Orchard; 8, 10. from Gucheng) (Scales: 1, 10. c.1/11; 2–5, 8. c.1/7; the rest c.1/5)



Figure 14. Primitive celadon stemmed plate from mound burial

contemporaneous, and more of the latter type existed. There was no obvious indication of the difference in social status based on the grave goods found in both types of mounds, and the finds match up to earlier archaeological information on their co-existence. A large majority of graves in MGM contain burial pits, the piled-up earth

burials were relatively fewer, and the large number of graves that contain human teeth or traces of human bone decay also strongly show the nature of such pits.

MGM with the center-facing structure were never archaeologically attested to before and it is a unique type of burial distribution. They are clearly different from those found in the cemeteries of the Central Plains and other areas, and they are attributable to Bronze Age Jiangnan. Boundaries of the SGM were occasionally discovered in the past, but in this excavation, not only have the boundary remains been found for MGM, but also the entire process of the mound's construction from the preparation of the layered earthen foundations to the establishment of the limits of the mound, all of which had been common practice. The center-facing structure and mound boundaries sufficiently explain the fact that the construction of mound tombs had undergone a process of careful planning. Various remains indicate that MGM could be lineage burials, although this conjecture still requires proof of DNA and other information. Nevertheless, the center-facing structure and meticulous

planning of mound constructions yield fresh scientific information for the study of the nature of mound tombs and new material to enable more in-depth research on the social structure of the Jiangnan region from the Western Zhou to the Spring and Autumn period.

The boat-shaped coffin and inverted Y-shape burial chamber have been found in a few large graves from the Yue state at Mount Yin in Zhejiang province, but their appearance in small-scale mound tombs constitutes a maiden discovery. Not only is the latter's periodization earlier than that of the Yue royal graves at Mount Yin, their status also clearly appears to be lower. This new discovery explains that the wooden burial chambers of the Mount Yin graves were constructed with a historical background to the burial customs of their time and society, but were not a unique tradition of the state of Yue, nor an exclusive practice that marked aristocratic status. Although this practice awaits further research, these discoveries have updated current information on the customs of the people who inhabited the Wu and Yue areas.

Note: The originally report was published in *Kaogu* 考古 (Archaeology) 2006.7:22–30, with eight figures, two pages of plate, written by Lin Liugen 林留根, Li Huren 李虎仁, Hang Tao 杭涛, Tian Mingli 田名利, and Wang Qizhi 王奇志. The present version is prepared by Lin Liugen and translated into English by Han-Peng Ho.